# PIZZA SALES ANALYSYS USING SQL

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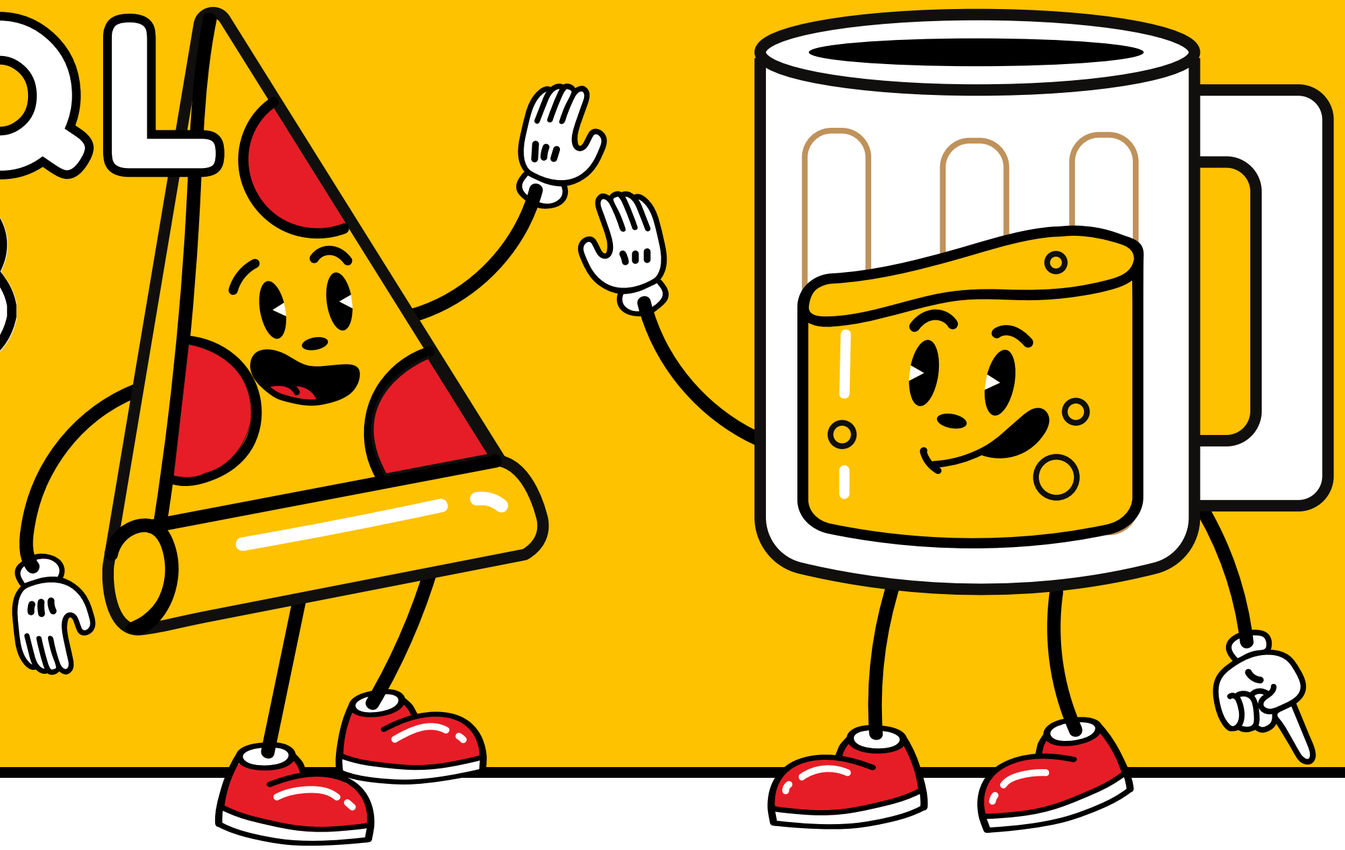

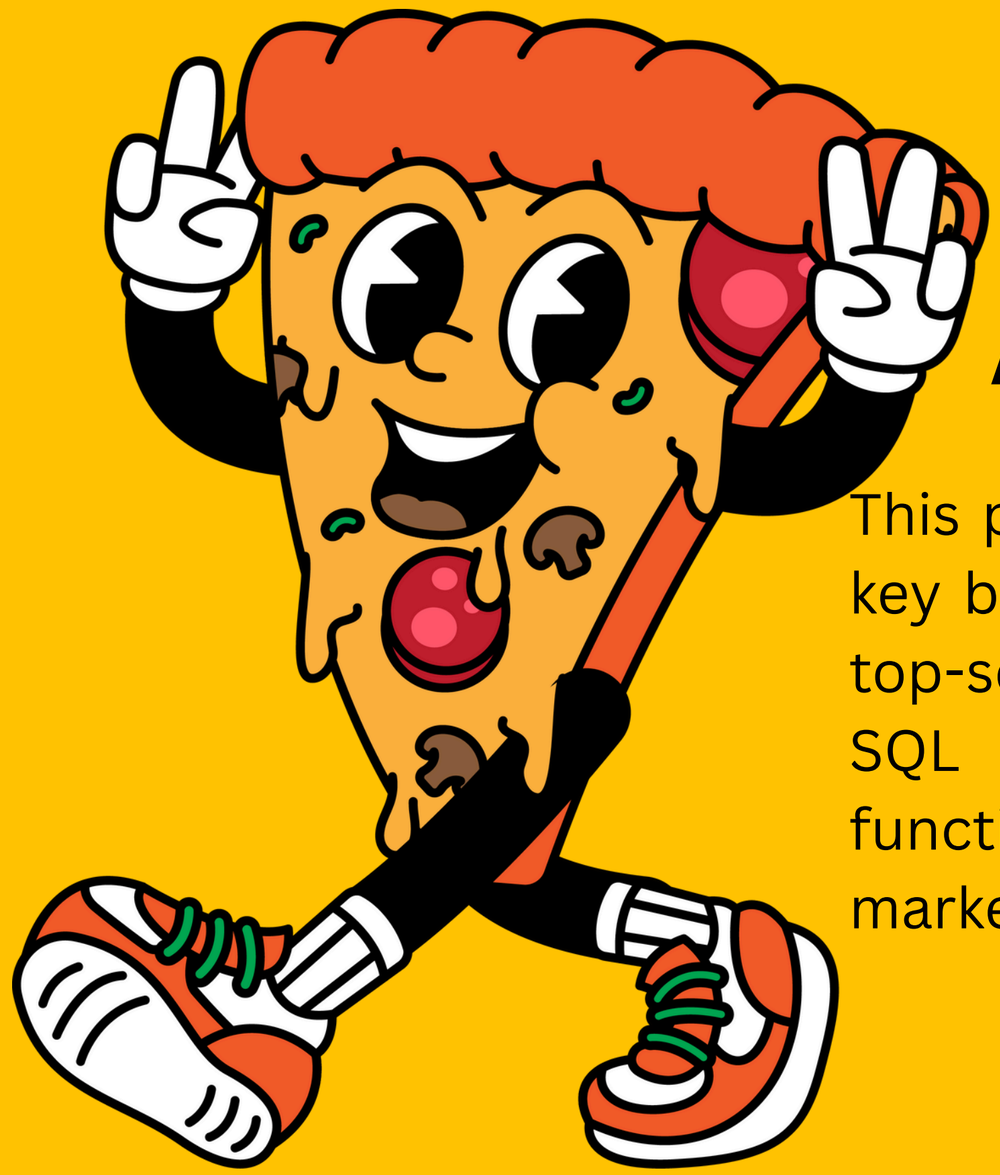

# ABOUT

This project analyzes pizza sales data using SQL to uncover key business insights. It explores metrics like total revenue, top-selling pizzas, peak order times, and average order value. SQL techniques such as joins, aggregations, and date functions were used to drive data-informed decisions for marketing, menu planning, and operations.

# RETRIVE THE TOTAL NUMBER OF ORDERS PLACED

```sql
SELECT
    COUNT(order_id) AS total_orders
FROM
    orders;
```

| | total_orders |
|---|---|
| ▶ | 21350 |

# CALCUATE TOTOAL REVENUE GENERATED FROM FIZZA SALES

```sql
SELECT
    ROUND(SUM(order_details.quantity * pizzas.price),
            2) AS total_sales
FROM
    order_details
        JOIN
    pizzas ON pizzas.pizza_id = order_details.pizza_id
```

Result Grid

| total_sales |
| --- |
| 817860.05 |

# IDENTYFY THE HIGHEST PRIZED PIZZA NAME AND PRICE

```sql
SELECT
    pizza_types.name, pizzas.price
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
ORDER BY pizzas.price DESC
LIMIT 1
```

Result Grid | Filter Row

| name | price |
|---|---|
| The Greek Pizza | 35.95 |

# IDENTIFY MOST ORDER PIZZA SIZE WITH NO OF PIZZA COUNT

```sql
SELECT
    pizzas.size,
    COUNT(order_details.order_details_id) AS order_count
FROM
    pizzas
        JOIN
    order_details ON pizzas.pizza_id = order_details.pizza_id
GROUP BY pizzas.size
ORDER BY order_count DESC
LIMIT 1
```

Result Grid | Filter Row

| size | order_count |
|---|---|
| L | 18526 |

# LIST THE TOP 5 MOST ORDERED PIZZA TYPES ALONG WITH THEIR QUANTITIES

```
select pizza_types.name,
sum(order_details.quantity) as quantity
from pizza_types join pizzas
on pizza_types.pizza_type_id=pizzas.pizza_type_id
join order_details
on order_details.pizza_id=pizzas.pizza_id
group by pizza_types.name
order by  quantity desc limit 5
```

Result Grid | Filter Rows:

| name | quantity |
|---|---|
| The Classic Deluxe Pizza | 2453 |
| The Barbecue Chicken Pizza | 2432 |
| The Hawaiian Pizza | 2422 |
| The Pepperoni Pizza | 2418 |
| The Thai Chicken Pizza | 2371 |

# DETERMINE THE DISTRIBUTION OF ORDERS BY HOURS OF THE DAY

```sql
SELECT
    *
FROM
    orders;
SELECT
    HOUR(order_time), COUNT(order_id) AS order_count
FROM
    orders
GROUP BY HOUR(order_time)
ORDER BY order_count DESC
```

| hour(order_time) | order_count |
|---|---|
| 12 | 2520 |
| 13 | 2455 |
| 18 | 2399 |
| 17 | 2336 |
| 19 | 2009 |
| 16 | 1920 |
| 20 | 1642 |
| 14 | 1472 |
| 15 | 1468 |
| 11 | 1231 |
| 21 | 1198 |
| 22 | 663 |
| 23 | 28 |
| 10 | 8 |
| 9 | 1 |

# JOIN THE RELEVENT TABLES TO FIND THE CATEGORY WISE DISTRIBUTION OF PIZZAS

```
select category, count(name) from pizza_types
group by category
```

Result Grid | Filter Rows:

| category | count(name) |
|---|---|
| Chicken | 6 |
| Classic | 8 |
| Supreme | 9 |
| Veggie | 9 |

# GROUP THE ORDERS BY DATE AND CALCULATE THE AVEAGE NUMBER OF PIZZA

```sql
SELECT
    AVG(quantity)
FROM
    (SELECT
        orders.order_date, SUM(order_details.quantity) AS quantity
    FROM
        orders
    JOIN order_details ON orders.order_id = order_details.order_id
    GROUP BY orders.order_date) AS quantity_ordered;
```

Result Grid

| avg(quantity) |
| --- |
| 138.4749 |

# DETERMINE THE TOP THREE PIZZA TYPES BASED ON REVENUE

```sql
SELECT
    pizza_types.name,
    SUM(order_details.quantity * pizzas.price) AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizzas.pizza_type_id = pizza_types.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY pizza_types.name
ORDER BY revenue DESC
LIMIT 3
```

Result Grid | Filter Rows:

| name | revenue |
|---|---|
| The Thai Chicken Pizza | 43434.25 |
| The Barbecue Chicken Pizza | 42768 |
| The California Chicken Pizza | 41409.5 |

# ANALYZE THE CUMULATED REVENUE OVER TIME

```
select order_date,sum(revenue) over(order by order_date) as cum_revenue
from (select orders.order_date,sum(order_details.quantity * pizzas.price)
 as revenue
from order_details join pizzas
on order_details.pizza_id=pizzas.pizza_id
join orders
on orders.order_id=order_details.order_id
group by orders.order_date ) as rev_per_day;
```

Result Grid | Filter Rows:

| order_date | cum_revenue |
|---|---|
| 2015-01-01 | 2714 |
| 2015-01-02 | 5446 |
| 2015-01-03 | 8108 |
| 2015-01-04 | 9864 |
| 2015-01-05 | 11930 |
| 2015-01-06 | 14358 |
| 2015-01-07 | 16561 |
| 2015-01-08 | 19399 |
| 2015-01-09 | 21526 |
| 2015-01-10 | 23990 |

# DETERMINE THE TOP THREE MOST ORDERED PIZZA TYPES BASED ON THE REVENUE FOR EACH PIZZA CATEGORY

```
select name,revenue from
(select  category ,name,revenue,rank()
over(partition by category order by revenue desc) as rn from
(select pizza_types.category,pizza_types.name,sum(order_details.quantity  * pizzas.price) as revenue
from pizza_types join pizzas
on pizza_types.pizza_type_id= pizzas.pizza_type_id
join order_details
on order_details.pizza_id = pizzas.pizza_id
group by pizza_types.category,pizza_types.name) as a)as b where rn <=3;
```

| name | revenue |
|---|---|
| The Barbecue Chicken Pizza | 42768 |
| The California Chicken Pizza | 41409.5 |
| The Classic Deluxe Pizza | 38180.5 |
| The Hawaiian Pizza | 32273.25 |
| The Pepperoni Pizza | 30161.75 |
| The Spicy Italian Pizza | 34831.25 |
| The Italian Supreme Pizza | 33476.75 |
| The Sicilian Pizza | 30940.5 |
| The Four Cheese Pizza | 32265.70000000065 |
| The Mexicana Pizza | 26780.75 |

Result 6

# CALCULATE THE PERCENTAGE CONTRIBUTION OF EACH PIZZA TYPE TO TOTAL REVENUE

```sql
SELECT
    pizza_types.category,
    (SUM(order_details.quantity * pizzas.price) / (SELECT
            SUM(order_details.quantity * pizzas.price) AS total_sales
        FROM
            order_details
                JOIN
            pizzas ON order_details.pizza_id = pizzas.pizza_id)) * 100 AS revenue
FROM
    pizza_types
        JOIN
    pizzas ON pizza_types.pizza_type_id = pizzas.pizza_type_id
        JOIN
    order_details ON order_details.pizza_id = pizzas.pizza_id
GROUP BY category
```

Result Grid | Filter Rows:

| category | revenue |
|---|---|
| Classic | 26.905960255669903 |
| Veggie | 23.682590927384783 |
| Supreme | 25.4563112600988 4 |
| Chicken | 23.955137556847493 |

# THANK YOU AND ENJOY A SLICE OF PIZZA!